UNITED STATES PATENT AND TRADEMARK OFFICE

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EITAN, PEARL, LATZER & COHEN ZEDEK LLP
10 ROCKEFELLER PLAZA, SUITE 1001
NEW YORK, NY 10020

EXAMINER
ALBERTALLI, BRIAN LOUIS

ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-19_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-19_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _10/21/02_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 18 is objected to because of the following informalities: on line 6 of claim

18, "an" should be –on--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-4, 7, and 10-19 are rejected under 35 U.S.C. 102(e) as being

anticipated by Brown et al. (U.S. Patent 6,377,922).

In regard to claim 1, Brown et al. discloses a control unit (Fig. 1, processor 110)

comprising:.

a recognition result receiver able to receive a recognition result (processor 110

coordinates the interactions between the different elements of recognition system 100,

column 2, lines 51-55; a word choice with the highest probability, generated from

recognizers 105-107, is used by the processor 110 to present a prompt to the user,

column 4, lines 9-11 and lines 62-67);

a recognition result association unit (database 108) having associations of results with recognition engines (each utterance from the user initiates a prompt, column 4, lines 9-11; each prompt in database 108 is associated with a response identifier to indicate the speech recognizer to be used, column 3, line 67 to column 4, line 2); and

a recognition engine activator able to activate the recognition engine associated with said recognition result (processor 110 directs the user's response to the speech recognizer indicated by the response identifier, column 4, lines 2-5).

In regard to claim 2, Brown et al. discloses a device communicator able to send feedback commands to a device (processor 110 selects prompts from database 108 which are presented to the user, column 3, lines 60-67).

In regard to claim 3, Brown et al. discloses the device is selected from a group consisting of: a telephone (recognition system communicates to telephone 300, column 2, lines 31-35), an audio device (a telephone is an audio device), a video device (user has a video display, column 3, lines 64-65), and a voice controlled appliance (telephone 300 interacting with a speech recognition an prompt system 100 is a voice controlled appliance).

In regard to claim 4, Brown et al. discloses a device comprising:

a microphone (column 2, lines 28-29);

an analog to digital converter (103) able to convert input received by said

microphone (column 2, lines 44-48);

a first speech recognition engine adapted to perform a first type of recognition on

an output of said analog to digital converter (recognizer A 105, assigned to recognize

digits, column 3, lines 56-57); and

a second recognition engine adapted to perform a second type of recognition on

said output (recognizer B 106 assigned to recognize letters of the alphabet, column 3,

lines 57-58).

In regard to claim 7, Brown et al. discloses voice controlled apparatus

comprising:

at least two speech recognition engines (recognizers 105-107, column 3, lines

23-25); and

a control unit able to switch between said engines based on recognition results of

said engines (processor 110 directs the user's response to the speech recognizer

indicated by the response identifier, column 3, lines 46-49 and column 4, lines 2-5).

In regard to claims 10 and 11, Brown et al. discloses a speaker (column 2, line

30) and a display unit (column 3, lines 64-65) are used as a feedback unit.

In regard to claim 12, Brown et al. discloses a method comprising:

recognizing a first audio input by a first recognition engine (Fig. 2, steps 301-304, column 5, lines 54-56);

activating a second recognition engine previously associated with said recognized input (in response to a spoken utterance, a prompt is presented associated with a response identifier assigning a speech recognizer, column 5, lines 13-16); and

recognizing a second audio input by said second recognition engine (column 5, line 17).

In regard to claim 13, Brown et al. discloses sending feedback to a user (a prompt is returned to the user, column 5, lines 13-15).

In regard to claims 14 and 15, Brown et al. discloses a method comprising:

a recognizing an audio input by a first recognition engine;

recognizing said audio input by a second recognition engine (identical spoken utterances are provided to each speech recognizer, column 3, lines 35-36); and

choosing between a first recognized result of said first engine and a second recognized result of said second engine and activating a recognition engine (the recognizer with the highest reliability is chosen, and assigned to recognize a particular type of utterance, column 3, lines 44-49).

In regard to claim 16, Brown et al. discloses a device comprising:

a microphone (column 2, lines 28-29);

an analog to digital converter (103) able to convert input received by said

microphone (column 2, lines 44-48);

a first speech recognition engine adapted to perform a first type of recognition on

an output of said analog to digital converter (recognizer A 105, assigned to recognize

digits, column 3, lines 56-57);

a second recognition engine adapted to perform a second type of recognition on

said output (recognizer B 106 assigned to recognize letters of the alphabet, column 3,

lines 57-58); and

a speaker able to provide audio feedback related to at least one recognition

result from said first and said second recognition engines (column 2, line 30, and

column 3, lines 62-65).

In regard to claim 17, Brown et al. discloses a voice controlled telephone

(telephone interface 300 is utilized as a local interface, column 2, lines 28-30)

comprising:

a recognition result receiver able to receive a recognition result (processor 110

coordinates the interactions between the different elements of recognition system 100,

column 2, lines 51-55; a word choice with the highest probability, generated from

recognizers 105-107, is used by the processor 110 to present a prompt to the user,

column 4, lines 9-11 and lines 62-67);

a recognition result association unit having associations of results with

recognition engines (each utterance from the user initiates a prompt, column 4, lines 9-

11; each prompt in database 108 is associated with a response identifier to indicate the speech recognizer to be used, column 3, line 67 to column 4, line 2);

a recognition engine activator able to activate the recognition engine associated with said recognition result (processor 110 directs the user's response to the speech recognizer indicated by the response identifier, column 4, lines 2-5); and

a speaker able to provide audio feedback related to said recognition result (column 2, line 30, and column 3, lines 62-65).

In regard to claim 18, Brown et al. discloses a voice controlled telephone (telephone interface 300 is utilized as a local interface, column 2, lines 28-30) comprising:

a microphone able to receive voice input (column 2, lines 28-29);

an analog to digital converter (103) able to convert said input (column 2, lines 44-48);

at least two speech recognition engines able to perform recognition on an output of said analog to digital converter (recognizers 105-107, column 3, lines 23-25); and

a control unit (processor 110) able to switch between modes of operation based on said output (speech recognition system 100 switches to appropriate prompt in response to a recognized spoken utterance, column 5, lines 13-15).

In regard to claim 19, Brown et al. discloses a voice controlled telephone (telephone interface 300 is utilized as a local interface, column 2, lines 28-30) comprising:

a recognition result receiver able to receive a recognition result (processor 110 coordinates the interactions between the different elements of recognition system 100, column 2, lines 51-55; a word choice with the highest probability, generated from recognizers 105-107, is used by the processor 110 to present a prompt to the user, column 4, lines 9-11 and lines 62-67);

a recognition result association unit having associations of results with recognition engines (each utterance from the user initiates a prompt, column 4, lines 9-11; each prompt in database 108 is associated with a response identifier to indicate the speech recognizer to be used, column 3, line 67 to column 4, line 2); and

a recognition engine activator able to activate the recognition engine associated with said recognition result (processor 110 directs the user's response to the speech recognizer indicated by the response identifier, column 4, lines 2-5).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Brown et al., in view of Hershkovits et al. (U.S. Patent 6,003,004).

Brown et al. does not disclose that the device comprises a vocoder.

Hershokovits et al. discloses a speech recognition system that comprises a

vocoder (Fig. 5, 16).

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify Brown et al. to compress the input speech data with a vocoder, in

order to reduce the amount of computation the recognizer must perform, as taught by

Hershokovits et al. (column 2, lines 40-44).

6.   Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Brown et al., in view of Slivensky (U.S. Patent 6,167,118).

Brown et al. discloses the speech recognition engines are speaker independent

commands and control engines (the user's utterances control a flexible schedule of

prompts to retrieve information, column 4, lines 9-11).

Brown et al. does not disclose the speech recognition engines are:

speaker independent name dialing engine;

a speaker dependent name dialing engine;

a speaker independent digit dialing multilanguage engine; and

a speaker dependent digit dialing language independent engine.

Slivensky discloses a voice dialing system that recognizes names and digits

(column 3, line 62 to column 4, line 3).

Neither Brown et al. nor Slivensky explicitly disclose whether the speech

recognition engines are speaker independent or speaker dependent.

Official notice is taken that it is notoriously well known and recognized in the art

that speaker independent speech recognizers provide better recognition results for

many different users, while speaker dependent recognizers provide better recognition

results for a single user.

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the speech recognizers of Brown et al. to be digit dialing engines so

the speech recognition device could be used for hands free dialing, which allows a user

to dial without manually pressing a keypad. Furthermore, it would have been obvious to

one of ordinary skill in the art at the time of invention to further modify Brown et al. to

include both speaker dependent and speaker independent speech recognition engines,

so the engines would be highly accurate for a specific user, and would also maintain

good recognition results for other users.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Martino et al. (U.S. Patent 6,061,646) discloses a system that

recognizes that a first part of speech is in a specific language, then switches the

recognition dictionary to the corresponding language for subsequent recognition.

Borcherding (U.S. Patent 5,165,095) discloses a voice dialing system that recognizes

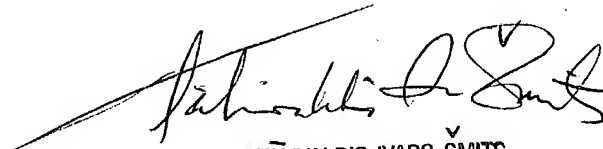an initiation command locally then downloads a speaker dependent recognition

template from a server. Vysotski et al. (U.S. Reissued Patent 38,101) discloses a voice

dialing system that utilizes both speaker dependent and speaker independent

recognition engines. Fabiani et al. (U.S. Patent 6,549,883) discloses a system for

selecting between several different transcription generators in several languages. Raud

et al. (U.S. Patent 6,125,341) discloses a speech recognition system that uses an initial

utterance to select a recognition vocabulary.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brian L Albertalli whose telephone number is (703) 305-

1817. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every

second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Talivaldis Smits can be reached on (703) 305-3011. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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TALIVALDIS IVARS SMITS
PRIMARY EXAMINER